August 5, 1988

TO:

Holland Shepherd, Soils Specialist

FROM:

Frank Filas, Reclamation Engineer

RE:

Bond Estimate, Caliham/Sage, M/037/023, San Juan County,

Utah

Attached are bond estimates for the Caliham Mine and Sage Mine as per your request. The estimates are based on the current surface disturbance.

jb Attachments 8/25

Caliham/Sage, M/037/023

Description, Caliham

The Caliham currently covers about 10 acres of surface disturbance which includes half a dozen Butler buildings, a waste dump, two ore pads, a water treatment pond, and a decline. Final reclamation will require building removal, foundation burial, and the regrading and topsoiling of the ore pads and waste dump. It is assumed that the access road and ponds will be left as part of the post mining land use.

Item	Amount	Rate	Cost
Removal of Structures and debris	Lump sum	Limited Salvage	\$5,000
Plug Boreholes	3	Lump sum	1,000
Seal Portal	1	Lump sum	1,000
Regrade pads & dumps and topsoil	160 hours D-7	\$110/hr	17,600
Rip and Seed	D-7 w/laborer 16 hours	\$125/hr	2,000
Seed	10 acres	\$80/acre	,800
		Subtotal	\$27,400
10% Contingency		2,700	
Total in 1988 \$			\$30,100
Escalation (2.3% for 5 years)			3,600
Total in 1993 \$			\$33,700

jb 8/23 Description, Sage

The Sage is accessed from the Caliham by a mile long road. The site is situated in a narrow valley and consists of two buildings, a decline and a narrow two to three acre pad/waste dump. The site is entirely on public land. Final reclamation will require building removal, foundation burial and reclamation of the road. The drainage runs along the toe of the dump. It will, therefore, be necessary to grade the dump back up the hill and cover it with nearby topsoil prior to seeding.

<u>Item</u>	Amount	Rate	Cost	
Removal of structures and debris	Lump sum	Limited salvage		
Plug borehole	1	Lump sum		1
Seal Portal	1	Lump sum		
Regrade pads, dumps and topsoil	80 hours D-7	\$110/hr		
Rip and seed	D-7 w/laborer 8 hours	\$125/hr	1,000	
Seed	4 acres (Borrow areas included)	\$80/acre	,300	
		Subtotal	\$13,300	
10% Contingency			1,300	
Total in 1988	\$		\$14,600	
Escalation (2.	.3% for 5 years)		1,800	
Total in 1993	\$		\$16,400	

jb 8/24